THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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THE CHARTER OF 1892.

At last all difficulties have been overcome and the new Charter forms part of the constitution under which we exist as a Corporate body. It was really signed last September, but when it reached our solicitor was found not to contain a clause directly giving us the power to raise the fees for graduates from thirteen to twenty guineas. This omission seemed at first sight to render the Charter unsatisfactory, for our Council had anticipated the power to raise the fees, and had drawn up a scheme of professional examinations which could not be carried out for the thirteen guineas to which previous Charters limited us.

The attention of the Privy Council was drawn to this omission and a request made that the power of increasing the fees be granted. After a time a reply was received that the Charter as it stood enabled the College to increase the fees by bye-law. This was the opinion of the law officers of the Crown, but the Council, knowing that an "opinion" is not always accepted by a judge as sound law, hesitated to accept it. They took counsel's opinion, and being advised that the Charter gave all the powers required, they have now accepted the Charter.

A Charter is a very solemn document, which commences by setting forth what the petitioners require, in a series of paragraphs commencing AND WHEREAS. This is called the preamble we believe. Then follows the business part of it, which recites shortly in distinct paragraphs the various things "willed, ordained, constituted, declared and granted." In these paragraphs nothing is said about any increase of fees, and hence arose the fear that we should be unable to demand twenty guineas for the examination, registration, and enrollment of new graduates.

Fortunately a Charter is a peculiar document, and anything which it approves in the preamble is considered as being granted, even if it does not appear in the summary. The preamble says "NOW, in view of the increased expense of holding examinations of candidates for membership consequent on the progress and extent of veterinary knowledge, it appears to us expedient to authorise an increase in such fees, and that the examination fees be fixed at a maximum of twenty guineas."

This view of a Charter is very interesting, and gives the lay mind quite an additional respect for the law and the manner of drawing legal documents. Of course it shows that half a Charter is as good as the whole, and that the irritating reiteration of each requirement is only verbiage, but no one is surprised at any such discovery being made in relation to legal forms. Fancy a book on Pathology being written in this style, and its readers required to pass an examination! However, the Charter is now ours, and perhaps it may be well to state what other provisions it includes other than that referring to the fees, they are—

1. That every Member shall be eligible to be elected a Member of Council provided that he has attained the age of twenty-six or shall have been in practice for not less than five years.

2. That the President and Vice-presidents shall be selected from the elected members of Council only, and that the number of members of Council shall on and after the next Annual General Meeting be thirty-two.

3. That the Annual General Meeting of the members of the College take place on the first Wednesday in the month of June in every year, instead of the first Monday in the month of May.

4. That the right of the Royal College to require that all students who enter the Veterinary Schools shall, prior to their first Professional Examination undergo an examination in general educational knowledge, be confirmed.

5. That no member of Council whilst holding that office shall be eligible to be elected an examiner; and that no examiner whilst holding that office shall be eligible for election as a member of Council.

These are the clauses which we all desired and which it is hoped will enable us to make greater progress in the future. Only one clause in the draft charter has been dis-allowed and that is of no great importance. The Council desired for convenience to delegate to the Registration Committee the power to institute proceedings under the Veterinary Surgeons Act of 1881, and to authorise the committee to affix the common seal of the College to any documents necessary for such purpose. This formed clause 7 in the draft charter, but does not appear in the granted document. Perhaps we may claim to act upon it, as a clause in the preamble says "it appears to us expedient for the purpose of prosecutions only" to delegate this power to the committee.

ELECTION OF EXAMINERS.

We are desired to state that the next election of Examiners will not take place as was expected in January. The election is postponed to March 1893. This delay is necessitated by an alteration of a bye-law which will permit the election of examiners for only two years. As a result the "four-years course" will start with a new Board instead of a re-arranged one.

CASES AND ARTICLES

INTUSSUSCEPTED SMALL COLON TWISTED AROUND ILEUM.

By G. H. Williams, M.R.C.V.S., Cirencester.

A short account of this case will in all probability be interesting to those like myself never having met with, nor read, nor heard of a similar lesion before. On Friday, the 15th inst., I was hurriedly called to a miller's stable a few hundred yards from Messrs Blunsom's surgery, to see a mare badly griped. At the stable a black draught mare, six years old, was showing signs of intense spasmodic colic. The useful information from the waggoner was that the animal had performed a long and tiring journey, and with the rest of a team had been allowed to drink from a stone trough filled by a spring two miles from town; she was first taken with pain a mile nearer home and he had great difficulty in getting her along. She had fed well in the morning, also mid-day, and worked freely; excrements natural.

The mare manifested most agonising pain, rolling about, turning from her back on to her belly, then powerfully contracting the dorsal muscles and retracting the neck, sweating profusely.

With much trouble she was got on her legs. The pulse was about 80 per minute and the artery hard; conjunctiva healthy, respiration accelerated and short, extremities hot, skin tight, abdomen tucked up. She made many attempts to lay herself down.

An anodyne draught was immediately exhibited, and half an hour later, to overcome the intestinal spasms, a large amount of chloroform was given by mouth, being repeated in smaller doses afterwards; hot enemata were also thrown up. At 11.30 p.m. the mare stood with only occasional twitchings; the pulse was 42, artery soft and dilated, respirations slow and deep; sweating ceased. Soon after midnight she laid down, pain gradually returned with accelerations of pulse and respirations, and again she broke out into a sweat.

On Saturday afternoon the seventh and last small lot of fæces was expelled (post stoppage), after then clysters were ejected unstained. In the meantime tinc. canabis indica with other medicines were several times administered. During the evening the opisthotonic symptoms was again shown, pulse went to 90, becoming hard and wiry. As the mare was exhausted æth. meth. was injected hypodermically as stimulant and anodyne. Early Sunday morning the pulse commenced running down, ears etc. turned cold and she died at 9.10 a.m., the visible mucous membranes having been only slightly heightened in colour.

The autopsy revealed a quantity of intra-abdominal hæmoglobin-stained effusion. The mesentery at one place was ruptured and highly inflamed, here a portion of the small colon was looped three times around the ileum, the foramen left by the rupture in the mesentery allowing this.

The small colon thus made six spiral turns and its pressure obstructed the lumen of the small intestine. These pieces of gut were divided from the rest, the ileum was withdrawn being the axis, and the small colon itself was found to be intussuscepted and slightly inflamed, being the only part of the bowel showing enteritis.

The large colon contained a moderate quantity of dry fæcal matter and the stomach a large amount of fluid, chiefly medicine mixed with water, the latter being the only matter she had voluntarily taken.

THE ARMY VETERINARY SCHOOL.

This Institution at Aldershot has become well known to the veterinary profession through the work done by its late professor. Captain F. Smith has now ceased his connection with the school and his successor will have a difficult task to follow on the lines laid down. The first paper published was in 1886 on "The Composition of the Air of Stables," and the amount of carbonic acid and ammonia in stable air was determined by a long series of analysis.

Then the question of feeding was taken up, and papers were written on "The Essential Diet of Horses and the Digestion of Hay and Oats." Next we had papers on "Navicular Disease" and "An Operation for Side-bones"—contributions of great value, which have stood the test of practice. Other papers rapidly followed and all showed original, patient work. "The Structure of the Skin of the Horse," "Composition of the Saliva of the Horse," "Composition of the Sweat of the Horse," "Structure of the Skin of the Elephant," "Composition of the Urine during rest and work." This paper deserves special mention, as it is, we believe, the first paper written by a veterinary surgeon accepted and published by the Royal Society since the days of Coleman.

Then we had a paper on "Sprains" shewing the value of pressure as a mode of treatment. At the Hygienic Congress Professor Smith contributed a paper on "Veterinary Hygiene." The question of "Saddles and Sore Backs" which had provoked several articles from this indomitable writer, at last drew such attention, at a lecture to officers, that it became the substance of an official manual, and is now the recognised authority on the subject.

Other papers there were, but we cannot remember all, and must conclude our list with a mention of "The Surgical Treatment of Ozœna," "The Diseases of Joints," "Vaccination and its Aspects."

In addition to all this the late Professor found time to write two standard manuals, one on "Veterinary Physiology" and one on "Veterinary Hygiene." He also organised and carried on the Army Vaccine Institute, which prepares material for vaccination direct from the calf for the British Army. It has already issued 150,000 charges of lymph and is accepted as most reliable and successful.

This is a wonderful record for one man in five

years, and shows what can be done by hard work. As veterinarians we cannot but regret the necessity which removes Professor Smith from a field where his labours are so beneficial to us all, but we suppose the exigencies of military regulations cannot consider individuals, nor can the Army Veterinary Department be expected to provide men and material for research, however useful and valuable it may be to the profession.

That the Army Veterinary School sustains a great loss by the retirement of Professor Smith is certain, and the statement is no reflection on his successor—Captain Longhurst—who may do good work in his time and yet not emulate the deeds of his predecessor. That the veterinary profession will suffer by the change is equally certain, as his new military duties will prevent Captain Smith from continuing his research work.

A VETERINARY PHARMACOPŒIA.

By Frank G. Ashley, F.R.C.V.S.

I am one of those who are of opinion that the veterinary profession should have its own pharmacopœia as then we should require drugs to be of a certain definite standard of strength; at the present time many of the drugs supplied us are of uncertain quality and strength, take for example opium if it is not standardized. The percentage of morphia ranges from 5 to 10 per cent., the difference in therapeutic value of which must be apparent to an ordinary observer, as it would be necessary to give twice as much of the former quality as of the latter in order to get the same therapeutic effect, and to this variation in strength of different samples may possibly be ascribed the difference in action of the same drug on same or different animals. Take again Fleming's tr. aconite, a most powerful and valuable therapeutic agent, but of various and uncertain strengths, a variation which, in my opinion, is sufficient to explain nearly the whole discrepancies in the doses spoken to by different practitioners.

If we had a pharmacopœia which required as far as practicable all drugs and their preparations to be of a definite strength we should be much more likely to get a uniform action from them, and many preparations could be produced at a much less cost and in much more convenient doses, and I cannot help relating here some previous experience of mine with injectis morphia hypodermica, bought ready made. Whilst assistant to a gentleman in the South we occasionally had cases of enteric complaints in which the usual treatment was carried out, and when the case did not yield we used to insert subcutaneously what was bought for hypodermic injection of morphia; but in not one instance did I see any physiological effect from it, and one day I asked my employer why he used it as we never seemed to get any effects, and his answer was that it was used as a matter of form and that he had never observed any effect follow its use. This is not exceptional experience, as within the last six months a friend of mine said he could never get any good from the hypodermics he bought.

In this practice the hypodermic injection of morphia is one of the most effectual agents in subduing pain. Many of the failures with morphia hypodermically is undoubtedly due to the fault of the preparation used, as I have proved on many occasions.

Then again many of the formulæ given in the current text books are simply remarkable, others are far too weak and costly, while many of the most convenient and most employed preparations find no place in these works.

G. Bowman, M.R.C.V.S.

"What ever is is right" seems to be the position taken up by Mr. McLaren in his contribution on the subject of a proposed pharmacopœia. I would like to make a few remarks in reply to his assertion that there is no need for such a work.

In relation to his contention that the B.P. is, or should be, our guide to the purity of the various drugs used in our practice, I am afraid that what he builds up with the one hand he knocks down with the other. How is it that the "majority" of the drugs used by veterinary practitioners are labelled "veterinary" which, according to Mr. McLaren, means second or third rate quality? Does this not show that according to him we do not follow that work in the preparation of our remedies? Again he admits that some alterations are necessary in some of the formulæ contained therein, and these alterations I contend can only be made satisfactory by an officially appointed and responsible body of practitioners, and not by any private individual however high his standing in the profession may be.

With regard to Mr. McLaren's fears that students have degenerated since his days, I can only repeat that at College they have not the means of acquiring the necessary knowledge of pharmacy which is to fit them for their after work; a condition of matters so easy of proof that it is a surprise to me that anyone conversant with the modern methods of teaching that subject can assert the contrary. Of course if all were as easily satisfied as Mr. McLaren, to judge from his statements that he only knows of two modern works on the subject, (surely this must be a joke on his part, has he never heard of any others of home growth, not to mention the American, French, and German works?) then there is not much need for any further enlightenment on the matter, but so convinced am I that such is not the case that I assert that were such a work issued, 99 per cent. of English speaking practitioners would take advantage of it, a benefit both to themselves and their clients.

Again, in reply to the assertion that veterinary surgeons are not to any extent in the hands of the wholesale drug dealer, I would ask practitioners to take a look over the advertising pages of the various

veterinary and agricultural journals, and ask himself if those advertisements appealing directly to the profession are inserted from week to week for amusement or profit. I think on a careful study of the matter it must be admitted that were there not a large response to such they would soon disappear from their pages. This I think is sufficient proof that ready-made preparations are much used.

Then Mr. McLaren asks who is to decide as to the various drugs which are to be admitted to or rejected from the proposed work. Here again it must be patent to anyone giving the subject a thought that such a matter would be better managed by a committee, such as Mr. Donald suggests, working together and discussing the various aspects of the case, than could possibly be done by any individual and on his own responsibility; and the same of course applies in the case of doses and preparations of such remedies.

With regard to the assertion that the B.P. contains much of the information wanted, I think that a careful perusal of its pages will prove the contrary, as I am sure that not 10 per cent of the galenical preparations (which in my opinion would be the most important part of any veterinary pharmacopœia) are in their present form of any value whatever to a veterinary practitioner.

In conclusion, I hope that Mr. Donald will persevere in his intention and be enabled to bring such to a successful issue for which, I feel sure, he will have the thanks of the profession generally.

A VETERINARY ASSOCIATION MEETING IN THE FAR WEST.

By Kudyard Ripling.

I have been through America and have seen many things to wonder at and much to be amused with. Nothing however afforded me such enjoyment, and for the time being so much risk, as a professional meeting held at Arizona Ma., under the auspices of the Veterinary Medical Association of Mazawattee.

I have often wondered why in this country we persist in adding the suffix "Medical" to the prefix "Veterinary,' perhaps it gives us an air of scientific importance, but so long as we are at present constituted it is not only incorrect but unnecessary. The term could only be applied where both medical and veterinary men meet together to discuss questions affecting the interests of both patients—but to my tale.

The house of meeting was a small hall with a big lamp outside, which was used for advertising some local quack nostrum, and over this, gaily fluttering in the evening breeze, was a national banner of stars and stripes looking, as it always does, the picture of humility and modesty, so characteristic of the continent it represents.

The friend who took me was got up in his best, with a large wideawake hat, a cigar, and a general odour of stale tobacco pervaded his system and even his very words. His excitement—for an American—was great, for it was anticipated that the meeting would prove a "regular scorcher" owing to the presence of another member who had always made it a point of honor to render himself obnoxious. I felt some little anxiety as to the results, but trusted that the presence of a stranger might help the president in maintaining order.

The president was a very polite, tall, thin man who spoke very much through his nose, with a long narrow face adorned with the billygoat hairy adjunct, so familiar in portraits of Uncle Sam; his sentences were delivered in a jerky manner and not always as clear as one might wish, which I conceived must be due to a suspicious looking lump which appeared first on one side and then on the other of his face, and seemed to stimulate his salivary secretion.

He was variously addressed as Doc, Doctor, and Colonel, and I learned that this latter was due to his holding some subordinate post in the local militia.

The president gave an opening address. He dwelt on his unworthiness for the high office which had been forced on him, stated that he fearlessly stood forward as the chosen man of the greatest and most powerful veterinary association on the face of God Almighty's earth, and defied contradiction on this point or any other. He reviewed with pleasure the past career of this powerful association, which was looked up to not only by the whole of "Amerika" but the entire civilized world, and hoped that their proceedings would be carried on "quite reg'lar."

The termination of the president's address was marked by loud applause.

The subject for discussion was lockjaw, but before it was dealt with a specimen of diseased bowel was dilated upon. It was a twist of the small intestine, and its odour and colour did not indicate that it was of recent origin. I was enchanted with the coolness of the gentleman who introduced the specimen; he said he had been called to a mule with gripes, had ascertained it had been in pain several hours, and after a careful examination of the patient, including the taking of the pulse at the tail, pronounced the case one of twist. He considered nothing short of an operation would be of any value, and with the consent of the owner at once opened the belly and put his hand on the diseased part; being a complicated twist he had to remove other portions of the bowel before he could reach it, and at last after a great struggle managed to set the thing free, remarking that the operation caused him to sweat. The contents of the abdominal cavity, which he had placed on some clean straw during this manœuvre, were now returned, and the abdomen sewn up and bandage applied. "The jackass" he said "never looked behind it and made a right slap down recovery." The interesting patient went to work in three weeks, but unfortunately met with an accident and was killed. Our surgeon with praiseworthy promptness obtained the carcase for examination, and exhibited the portion of bowel which he had untwisted a month previously. Asked as to how he knew this was the piece, he said he had just cut his initial on the skin to which the bowel was fixed, to prove he had been there if ever a doubt should arise!!

There was a short pause after this address, and I drew a deep breath of satisfaction and relief as the bold operator sat down. The members of the Association were quite unmoved, for my friend informed me through his nose that the speaker was the biggest liar between New York and "Kaliforny" and no one took any notice of what he said The operator looked around him with an expression on his face of "contradict me who can," but the meeting was not ripe at present for a passage at arms, and much to the apparent disappointment of the eminent surgeon, the statements were allowed to pass unchallenged, and the putrid specimen remained on the table.

To tell the truth, I was astonished at the man's consummate coolness in passing off on the intelligence of the meeting a condition which might have existed as a possibility, but was evidently a gravely improbable and false statement.

The lockjaw gentleman next addressed the meeting and he dealt in the first instance with the pathology of the disease. His views on this interesting question are so new, that I have ventured to reproduce them for the benefit of the veterinary world.

"Lockjaw, citizens," he said "is a sort of regular locking of the jaw bones, caused by the blood congealing in the muscles of the head. The congealing first starts in the head and then runs to the tail and last to the legs. If the congealing is permanent the case dies, but if the 'doc.' can only get the blood to run the congealing breaks up and the case recovers. What I tell you is right—I know it for a fact—for if I rub the muscles of the face with congealed blood I can produce lockjaw and squint."

It is only right to say that several of the able representative men in this room had obtained their diplomas and degree of doctor from one of the many bogus veterinary colleges existing in the far West. Their notions of elementary anatomy and pathology were of the most amusing kind, and plainly indicated the depth of their teaching and the profundity of their knowledge. This doubtless accounted for the views advanced by this distinguished pathologist who was addressing us on the subject of tetanus, and it likewise accounted for the treatment which he adopted.

"The first thing we have to do, citizens, is to get the jaws open; for this purpose an iron bar inserted between the teeth will be found of the greatest value, it must be applied with no unstinting force, the congealing of the blood must be overcome, it will make him sweat but that will do him good; if this remedy is not found sufficient, an unfailing one is to chase the horse round the box with a whip; at first he pretends he can't move—lay it on—this stimulation rouses him, his muscles relax, the congealed material is forced out, and a regular sweat brings the case to an end."

The address on lockjaw was more than the audience could stand, they took the bowel case well, but to treat tetanus by a liberal application of a cart whip was even more than the American mind could tolerate. The members shot up together, and for some time the president had difficulty in saying who should speak first, the bowel gentleman, however, caught his eye and in a few well-chosen words he told the essayist he was either a liar or a 'blarmed' fool. The uproar now became deafening and personal violence was threatened. The essayist retorted in equally courteous language followed by a shot from a revolver which put out the lamp, and was succeeded by several other shots evidently fired at the ceiling, judging from the amount of plaster which fell.

I and my friend had long ere this taken refuge under the table, which in spite of the nastiness of the floor, due to the prevailing American habit, was preferable to being "plugged at" in the dark, and in this way the meeting came to a close by a general rush for the door.

Once outside I breathed a sigh of relief, and informed my friend that it was certainly the most stormy meeting I had been at in my life. He apparently did not think it anything very extraordinary, said that these things did no permanent damage, it was simply their way of showing their feeling; and presently pointed out to me our friends, the distinguished pathologist and the eminent surgeon, drinking 'gin sling' together in a neighbouring saloon.

TRANSLATIONS.

VOLUMINOUS HAIRY CYST IN THE MUSCULAR TISSUE OF THE LEFT SUB-LUMBO-SACRO-ILIAC REGION OF THE PIG.

By M. Ch. Morot.

Trans. by Thos. J. Watt Dollar, M.R.C.V.S.

This hairy cyst was found in August, 1892, by M. H——, pork dealer (charcutier), at Troyes, in a fat pig from eight to ten months old. It was situated in the middle of the muscular tissue close to the left inferior face of the bodies of the two last lumbar and the first sacral vertebræ, as well as the anterior face and external side of the left ilium. It especially occupied the interior of the psoas-iliac. It was consequently unnoticed when the pig left the abattoir, cut in two, by the longitudinal section of the vertebral column the sternum and the median line of the abdomen after the viscera had been removed. Fairly regularly ovoid, this cyst had a maximum longitudinal diameter of ten centimetres (1), and a transverse diameter of five centimetres It contained an entirely closed cavity; the greatest longitudinal diameter of which was eight centimetres, and transversely two centimetres and a half. The walls of the pocket were formed of fat (*lard, i.e.* fat of pork or bacon). The dermis of this was internal, and formed the internal face of the cavity, whilst the fat was excentric or external. The dermis which was a millimetre (3) to a millimetre and a half in thickness and greyish internally, had a whitish inner face. This, washed by one or two grammes (4) of thick and yellowish sebaceous matter, was covered with numerous yellow bristles,

of the medium length of two centimetres, some firmly attached, others easily pulled out or already free. White and firm as usual, the fatty layer was from one to two centimetres in thickness. This cyst was attached to the muscles and to the neighbouring fat according to the manner in which ordinary fat adheres to the subjacent muscles.

(1.) Ten centimetres—3·9370 English inches.
(3.) One millimetre—·03937 English inches.
(4.) One gramme—15·432 grains.

TWO CASES OF HEPATIC ECCHINOCOCCI IN THE MARE.

By M. Ch. Morot.

(Presented by Professor Raillet, of Alfort, to the Société Centrale de Médicine Vétérinaire).

Trans. by Thos. J. Watt Dollar, M.R.C.V.S.

I. Very aged mare, slaughtered at the abattoir of Troyes, January, 1891. The liver was the seat of two hydatid cysts, one of the volume of a small apple (pomme d'Api), the other the size of a walnut. The first had thin walls, was filled with a clear liquid which contained a large number of scolices easily visible with the microscope. The second with somewhat thickened walls contained a clear liquid and an internal hydatic membrane apparently normal, but showed no signs of a scolex on examination by the microscope.

II. Mare about twelve years old, of third quality, coat cherry bay, slaughtered at the abattoir of Troyes, the 15th July, 1892. The autopsy showed the existence of three hepatic hydatid cysts. The first of the volume of a medium-sized orange, was very fluctuating, and situated nearly entirely in the thickness of the liver, at the surface of which its yellowish envelope partially appeared on each side to the extent of a two franc piece. It contained nine centilitres of very clear serosity, and a great number of very distinct scolices. The internal membrane, very smooth and thin, was everywhere well attached to the cystic wall although easily detached. The second cyst, of the size of a small orange, was hidden in the liver and only visible by its yellowish surface at one point about the size of a franc. It contained about a centilitre of greyish fluid. (2.) The internal membrane somewhat thickened and rumpled (chiffonnée), had a whitish external face, a slightly yellow internal face and as it were covered with a small yellowish down (duvet); this "down" under the microscope showed several hooks and calcareous corpuscles, but no complete scolex. The subjacent membrane, rigid and calcified with a greyish internal face, was dark and sinuous like the folded surface of a brain. The third cyst, as large as a pigeon's egg, contained no liquid. It had an internal membrane absolutely identical to that of the second cyst and covered on its external face with a little sticky and yellowish magma, the total volume of which was equal to that of a filbert. No trace of a scolex was to be found. Moreover, the wall appeared firm and thick (without being calcareous), greyish and slightly folded.

By this it will be seen that the hippophagic abattoirs enable the list of cases, of hepatic ecchinococci as seen in the horse, to be extended. By this means two instances have been drawn attention to, one at Bremen in 1883 (3) and one at Spremberg (Brandenburg) in 1891-91 (4).

Bulletin de la Société Centrale de Médicine Vétérinaire, 30th Oct., 1892.

(2.) One centilitre—·610 English cubic inches.
(3.) E. Leclainche and Ch. Morot, "L'etat actuel de l'hippophagie en Europe" (Revue des Sciences Naturelles Appliquées. No. du 5 Août, 1892, page 103).
(4.) Brade. Fleischau-Bericht (Zeitschrift für Fleisch und Milch hygiene von R. Osterlag, Berlin, 1892, page 222).

NOTES ON TUBERCULOSIS.

By Bongartz, Bonn.

Trans. by Jno. A. W. Dollar.

Tuberculosis of the udder, so well described by Prof. Bang, seems really not to be so frequent as was formerly supposed. For some years past I have carefully examined such cows as were suspected of tuberculosis, not only generally but also for tuberculosis of the udder, and in addition in cases of spontaneous mastitis have paid particular attention to those points which the Professor cites as indicating tuberculosis. Of the many cases, however, which I am called on to examine every year, certainly not more than one or two can be unhesitatingly described as tuberculosis of the udder. One very interesting case I will here shortly describe. A fine Holland cow, pregnant when bought, was sent home for examination on account of a frequent cough. I found her well nourished, skin loose, coat smooth and shining, but with a somewhat painful cough, increased breathing-sounds, and especially a purring bronchial tone. The udder was of medium size, the skin covering it smooth, and of normal temperature; one quarter was increased in size, was firm to the touch but not so hard as in parenchymatous mastitis. Three of the teats gave normal milk, but that belonging to the swollen quarter delivered a thin, bluish, although still sweet milk, and the quantity was smaller than that from the others. I diagnosed tuberculosis. This opinion received further support during the next week, as the diseased quarter continued to give less milk and the originally sweet taste was exchanged for a salt one. At the same time the diseased part became grey and increased in size, until in the course of three weeks it was four times as large as at first. Whilst this change was taking place the cow calved. Two eight-month calves were born, and immediately afterwards the disease assumed an acute form; so rapid was its course that the cow died within the 42 days within which the seller is held responsible for disease. The *P.M.* examination showed many caseated growths in the lungs, the bronchial glands were greatly enlarged and caseated, and in addition the entire tissue of the lungs was permeated with fresh tubercles of all sizes up to that of millet seeds.

The greatest interest, however, attached to the udder. The enormous increase in size seemed chiefly due to connective tissue growth, which grated when cut into. The cut surfaces showed a stratified greyish-white dense stroma, in the midst of which lay hundreds of large and small degenerated tubercles, containing caseated material. This latter, as compared with the material found after pneumonia, was greyer and of a softer consistence. The gland substance was in great part destroyed, only isolated yellowish tracts remaining. The microscopical examination showed the neighbourhood of the tubercles to be so richly infiltrated with bacilli that I preserved the tuberculous quarter of the udder for the purposes of the bacteriological course in the college here, which it has for a long time supplied with most instructive material.

What in this case determined the diagnosis of tuberculosis of the udder during life was the circumstance that, together with the existing lung disease, the affected portion of the udder still gave some milk which was not very different in quality to the ordinary milk, and also that the skin over the affected part was, and remained without any warmth or swelling, which in cases of mastitis, either with or without specific infection, is not usual.

It is also exceedingly seldom that tuberculosis takes so rapid a course as to kill a well-nourished, robust animal within six weeks.

In conclusion I will shortly describe two cases of brain tuberculosis. The first occurred in an apparently healthy cow, which fell to the ground suddenly and made violent movements with the head and legs. When, contrary to expectation, she again rose it was seen that the left eye was directed downwards and towards the right, and the neck was also somewhat bent downwards. The animal remained so for several months, apparently healthy. One day however she again fell and was of necessity killed. On post-mortem examination I found leptomeningitis tuberculosa both of the basis and upper surface of the brain, with local adhesions between the pia mater and the brain, serous infiltration of the brain substance, and partial filling of the lateral ventricles with serum.

Very slight traces of tuberculosis were evident in the lungs.

The second case showed the following appearances: The cow fell suddenly and made movements of the feet and legs, similar to those usual in epilepsy. As, however, she did not regain her feet, she was slaughtered, and my certificate sought to allow of the meat being sold. Here also there was inflammation, thickening and increased growth of the brain, in the thickened membrane lay little yellowish-grey soft growths, which I was the more inclined to regard as tuberculous as many small pearly, tubercular growths (perlknoten) were also found in the pleura and peritoneum. The cut surfaces of both hemispheres of the brain were soft and yellowish-grey in colour. In reference to the latter appearance I may remark that it is of frequent occurrence in cows which die of brain apoplexy without being in the least tuberculous.

In such cases the surface of the affected spots is at times coloured black. Up to the present the cause of these appearances is not entirely clear to me.—*Berliner Thierärztliche Wochenschrift, No.* 48, *Nov.* 24*th*, 1892.

PIGS INOCULATED WITH ANTHRAX.

By Professor Perroncito, (of Milan).

Trans. by Thos. J. Watt Dollar, M.R.C.V.S.

A culture of the "bacillus anthracis" was injected into the subcutaneous connective tissue of the thighs of two young pigs. In five days, an extensive, painful tumefaction appeared at the point of inoculation, and gradually increased in dimensions. Death resulted in eight days.

The autopsy, which was conducted immediately, showed a washed-ont appearance of the muscles of the tumefied region, as well as a large collection of reddish serosity in the neighbouring tissues.

The tumour crepitated under the pressure of the finger Microscopical examination showed that the serosity contained large numbers of the anthrax bacilli. The abdominal cavity contained a yellowish liquid holding numerous white globules and the specific elements of anthrax in suspension. The spleen was hypertrophied and stuffed with microbes. The lungs and the kidneys were normal. There was hyperæmia of the liver. The heart was gorged with blood; and some preparations showed that this latter contained bacilli. Cultures made with the abdominal serosity, have all been followed with success. In the same way inoculations of this serosity to guinea pigs produced death in about thirty-six hours.

Giornale de Medicina Veterinaire, Febbraio 1892.

VETERINARY SOCIETIES.

THE MIDLAND COUNTIES VETERINARY MEDICAL ASSOCIATION.

A meeting of this association was held at the George Hotel, Rugby, on Friday November 11th. Before commencing the meeting the members were entertained at luncheon by Messrs. Over and Barber of Rugby, after which, in the absence of Mr. F. W. Barling, the President, Mr. J. Malcolm, one of the Vice-Presidents, was voted to the chair.

There was also present Messrs. W. Hunting, London; Stanley, J. Blakeway, Birmingham; Dawes, Collett, West Bromwich; Perrins, Worcester; Crowhurst, Leamington; T. J. Merrick, Northampton; Huband, Cheltenham; Carless, Stafford; Thompson, Coventry; Cole, Hinckley; King, Newport Pagnell; Pemberton, Bridgnorth; Grasby, Daventry; Barrett, Nuneaton; Wapenaby, Burton-on-Trent; Burchnall, Loughborough; Proctor, Solihull; Jones, Leicester; Blunt, Lutterworth; Over, Barber, Rugby; Marriott, Northampton; Bainbridge, Wellingboro'; Horton, Warwick. Visitors: Messrs. Wilson, H. G. Rogers, G. W. Lansley, C. W. Crofts, Pierce, Dix, etc.

Upon taking the chair Mr. Malcolm explained that Mr. Barling was unable to attend in consequence of the

weight passes from heel to toe, the vessels of one part are pressed whilst those of another are relieved, and so some distension of one soft part may take place at the same time that collapse of another attends the lesser quantity of blood in its vessels.

One now comes to a much more difficult point to understand when he comes to the movement of the sole. It is said by Lungwitz and Smith, that when the weight is placed upon the ground the arch of the sole descends. I will not say I disbelieve the electric battery, but I do say I cannot at all understand how that can be in regard to the anterior part of the foot. Until other experiments are made I am not going to accept the descent of the sole, because that requires one also to believe that the pedal bone descends within the hoof. The laminæ are white fibrous structures, and I cannot understand how any yielding can take place there. More than that, if the sole descends the suggestion would be that to keep the sole elastic it should be more or less thin, so that it might more easily descend. We know that that practice has been tried and proved a miserable failure, and that the stronger you leave sole the better it is for the horse, and the less possibility there is of it descending and the arch becoming flattened by the weight. Again, if the arch of the sole descends you must have some bulging of the walls surrounding it. If the arch flattens its abutments must be driven outwards, and therefore I believe that the fact that the wall of the hoof, at any rate in its anterior part, does not expand is another proof that the sole does not descend.

It is pointed out as an argument in favour of this action of the laminæ, that in cases of laminitis the pedal bone is driven backwards from having lost its attachment to the laminæ in front, whilst being drawn into a vertical position by the flixor tendons behind. Now I cannot believe in any such mechanical action as that, because in no case I ever saw was there a space between the laminæ and the wall of the hoof. It only occurs in very bad cases, and it is due to the extra exudation that takes place from the sensitive laminæ. This exudation gradually collecting between the wall and the bone presses the bone backwards and downwards, and then you have the abnormal position of the bone which causes the point of it to come through the sole. Contraction so-called as a cause of disease I dont believe in at all—and I do not think perhaps there are many of us who do. I look upon contraction always as a result of disease. It may be sometimes that the disease is so slight and so wanting in definite symptoms, that one does not notice it until one gets contracted foot. Of course disease of the laminæ causes wasting, and navicular disease may cause contraction of the hoof, but as a rule I believe the beginning of certain chronic diseases of the foot is due simply to the plantar cushion, and the proper thing to do is to restore the functions there by getting more pressure on the frog.

The existence between the hard tissues and the wall of a large vascular surface permits a certain amount of movement. That movement is very little, but even that little is of great practical importance in maintaining healthy nutrition.

In the early stages of what is called navicular disease, or in those cases where you have every symptom of navicular disease, one is inclined sometimes to think that it is an incurable condition, and you then either get rid your horse or kill him. Now, after you have established vascular activity in the foot (and I do not know of anything else you do except increase the activity of the circulation) by frequently working the animal, you will very often have a speedy recovery, perhaps I shall make myself clearer if I state a case. You are called to see a horse that points his feet, or it may be both fore feet. He is lame for ten minutes after he leaves the stable and then he goes fairly well. The suggestion is that you have some disease in the structure of the navicular bone. I know two or three instances where we worked the animal every day for some weeks at the risk of being prosecuted, and then got absolute soundness and natural enlargement of the feet.

Now these changes cannot be due to diseases of the bone, but are, I think, due to vascular affections; and all that happens is that you re-establish functional activity in every part of the foot by working. When you get the foot to resume its proper form and action merely by constant daily exercise and shoeing the horse with tips, all I can say is that you bring every part of the foot into equal vascular activity. It causes some pain, but it is well worth causing from the results you obtain. There is another point I want to mention. At the back of the foot you have the thinnest part of the wall. Now if you shoe a horse, say for corn, and to relieve the pressure, leave a space between the wall and the shoe at the heels, you will find that when weight is placed upon the foot there is contact of horn with shoe—in fact the hoof is so thin and elastic as to allow a downward yielding of its posterior parts. That of course is a yielding shown in abnormal conditions. The fact is evidence that if you fit a fancy shoe to a foot so that an abnormal motion is permitted—such abnormal motion is possible. If you fit the shoe level to the foot no such movement takes place; and the only reason you have that movement down is because there is nothing underneath the hoof to support it. Now I have heard it argued that this is a natural condition of the foot which ought to be provided for, and upon that bit of physiology you are taught to "ease the heels" of all horse shoes—to fit your shoes so in fact that you can pass a pretty thick knife blade for an inch or two between the heel of the shoe and the heel of the foot. I submit that this is entirely a mistake founded upon an erroneous notion of the physiology of the foot, and about the very worst thing a man can do when he is shoeing a foot. The "eased-heel" shoe simply means sacrificing an inch and a half of the very best bearing surface of the horse's foot. It means also concentrating upon the anterior half the pressure which ought to be upon the whole foot. And any horse that is shod for long with eased heels has weak quarters as the result of the extraordinary pressure upon them, and he generally goes badly, even when not lame, because you fail to utilize as bearing surface, the best part of the horse's foot, that is, the last inch and a half of it. (Applause.)

THE CHAIRMAN said they were very much indebted to Mr. Hunting for his very able address which opened up a wide field for discussion. Reviewing some of the points of the paper he said with regard to expansion of the horse's foot that it was a subject upon which Mr. Hunting had been a party man, and upon which he had taken a very strong line, but his views appeared to be somewhat modified to what they were at one time. The question of contraction of the foot and the effect of shoeing with tips also offered a wide field for discussion.

Mr. PERRINS said he should like to ask Mr. Hunting first of all what he considered to be the causes of corns. His experience was that pressure caused corns, and by taking the pressure off, they relieved the heels, and the horse goes sound. Then with respect to the suspensory ligament he quite agreed with Mr. Hunting in saying that it was non-elastic. And he should like to know what he meant by check ligaments. His experience always led him to believe that pressure created expansion, and where they did not get the frog in contact with the ground and did away with that pressure, he could readily understand that they got contraction of the lateral cartilages. But where they got proper pressure of the frog upon the ground then they did not have contraction but expansion.

Mr. WARTNABY tendered his thanks to Mr. Hunting for his very instructive paper. He quite agreed with regard to the suspensory ligament, he did not think it

took any part in the contraction of the leg, when the horse's foot is raised from the ground. He had always been led to believe that they never come into operation except under a strain, *i.e.* when the back tendons were strained and the check ligaments were called into operation to check it. With regard to this band of white fibrous tissues Mr. Hunting spoke about, bridging from heel to heel and the lateral cartilages, he (Mr. Wartnaby) must in common honesty confess ignorance with regard to it. He did not remember having been taught so, or if he was taught so he must admit having forgotten it. But he could readily understand that if such were the case the contraction of the heel to which Mr. Hunting referred would very naturally follow; and if the frog were cut away they would get this contraction of the heel. He thought what tended more to the contraction of the heel was not so much the cutting away of the frog and leaving the heels and the walls untouched; as it was a very common practice of the blacksmith to do so, and especially where horses are shod by contract they would have the shoe taken off and another put on in pretty much the same place; he thought contraction of the heel was more due to the walls and the heel not being properly pared. With regard to fracture from concussion, he would like to mention that in the course of his practice he had come across two horses with fractured pasterns, produced in one case by the horse which was frightened by a train passing over a railway bridge, making sudden efforts to get away. With regard to Mr. Hunting's reference to the pedal bone coming through the sole, he asked whether it was not more likely to be due to the inflammatory action set up in the sole. In cases where he had had lameness following on laminitis and the horses had recovered he had always cut down these and invariably found pus. He did not quite agree with Mr. Hunting that the pedal bone being pressed down and forced upon the sole. He thought inflammatory action would be set up as the result.

Mr. J. S. BARBER thoroughly appreciated Mr. Hunting's remarks, who bore him out about shoeing, in which he always took a great interest. There were three things he always went for, viz., lowering the heels, shortening the toes, but don't touch the frog. If there were a few rough rags about the frog pull them off, don't cut them off. As regarded laminitis there was no doubt they got sloughing of the laminæ.

Mr. T. HORTON thought the theory that explained why the suspensory ligament became strained more in race horses than any other animals, was this—they would remember that it bifurcates at the lower extremity, and comes round to the front part of the foot; and he thought when the leg was extended that would tend to tense the ligament much more than if it was adhering to the posterior part of the foot. Given that when it was tense was just when the horse's foot was extended, he thought the time when they got it injured was when the muscles became tired; for if a muscle became tired from exertion that muscle tended to stretch, and so the flexor tendons do not take the same share in supporting the limb, and so they had more weight thrown upon the suspensory ligament, and when the horse was dead beat the ligament could not stand it. That was his idea of the strain upon the suspensory ligament when in action. He had no doubt that the ligament was a very great help in keeping the bones in a right position when in action. With regard to laminitis it had just occurred to him whether, when they had a great deal of exudation in bad cases, it would not be a good thing to rasp the wall nearly away from the front of the hoof and allow some of the exudation to escape. Rasp down until you draw blood.

Mr. CARLESS said with regard to strain of the suspensory ligament he thought it was more mechanical than anything else. When the strain of that ligament took place it was a very unconscious movement. With regard to the movement of the sole he was quite in accord with Mr. Hunting inasmuch as he did not see why the old fashioned method of seating the shoe inside was necessary to be adopted now if that was not. If the weight was not upon the foot it was not necessary that the shoe should be seated, and he considered that a horse should go comfortably and well with the shoe touching the wall. But it was not so and they always found that they went stilty in their action; and there would also be suppuration if there was considerable bearing on the sole. He had always been under the impression that the shoe comes in contact with the horn of the sole when the foot is on the ground. With regard to the rational method of shoeing with what was called the "rational" shoe he was greatly in favour of it, especially for all weak heeled horses which go tender and dotty in consequence. He thought the rational shoe was a cure for all conditions of feet and he had adopted it very often with great success. It was a certain remedy for corns if they were not suppurating.

Mr. BLAKEWAY said they had been speaking about corns, and pressure producing corns, but he thought that they should ask themselves what a corn is. He took it that it was only a bruise of the sensitive sole. They knew that continued pressure produced atrophy, and interrupted pressure produced hypertrophy. He did not think it was due to continued pressure on the sole. Then with respect to the easing of the heel when the shoe was on he did not quite understand what Mr. Hunting meant. He considered it a bad practice in shoeing to lower the heels. His instructions were always to lower the toes and get the heels as high as you can. He was certain that in town shoeing they would get corns if they got the heels too low. He was in favour of the rational shoeing if they could get the heels to stand it, but the difficulty was to get horses in the town to stand it. He always found that in putting on the Charlier shoe they got the heels too low. And when he could not get horses to travel in the Charlier shoe he got the patent indiarubber bar pads and the horses would go in them.

Mr. BARBER:—In these cases I put them on thin heeled bar shoes.

Mr. BLAKEWAY said he did not attach much importance to a horse pointing his feet if he pointed the diagonal foot with it. He thought they must take it as an invariable rule, and he did not think they would be justified in condemning a horse for pointing his feet if he went perfectly sound. With reference to the case of fractured coffin bone, he understood Mr. Hunting to say that the horse had just come from the blacksmith. He (Mr. Blakeway) should think that in all probabilty it was caused while there. The very act of dropping the foot from the hand to the ground was sufficient to cause fracture of the pastern bone. Some horses, as they knew, put great weight on the smith while being shod, and therefore when he loosed the foot it would go down with great concussion. With regard to abnormally large frogs he did not like to see them, and thought they could have too much of a good thing. Horses with fleshy frogs were often associated with unsoundness.

Mr. BARBER said with reference to this fracture of the os pedis he had always had the idea that it was due to ostitis becoming chronic. As to fleshy frogs, he would rather leave the frog and pare the foot.

Mr. ROGERS agreed with much that had been said. In reference to corns, in the majority of instances, it was due to bruises of the sensitive structure of the foot, and he knew nothing that would produce corn so surely as shoeing horses with short heeled shoes. Passing on to the expansion of the foot, he had no doubt that it did expand, but to such a small extent that it was of very little practical importance. Some years ago when attention was called to this subject, he carefully examined the polished portion of the foot surface, and found that this

polish was made up of a series of scratches which all ran in a transverse direction across the wall from heel to heel. This condition of scratch or polish seemed only possible by lateral contraction of the heels. With regard to the descent of the sole, he did not think any great amount of descent took place. It might not be difficult for experimental purposes to measure it, but it was to such a small extent that he thought they should practically ignore it. If there was a small lateral expansion it must follow that there is a small descent of the sole. These were very interesting pathological experiments, but their practical utility it was rather difficult to see or apply.

Mr. STANLEY said his opinion had not been altered yet, that contraction and expansion takes place both at top and bottom of the foot in every action. He thought the last speaker's observation was very conclusive. With reference to the different ways of shoeing no one could lay down any law. If he has a good heel there is no doubt the proper way is to shoe a horse with the Charlier shoe, but so long as you have different classes of roads, granite, macadam, etc., you must shoe your horses to stand the wear and tear. With reference to shoeing a lame horse—at the present time there were lots of horses working, which 20 years ago would have been cast off, because they did not have india-rubber pads then. But there was no law as to shoeing, you must shoe your horse according to the foot that presents itself. With reference to the concussion in a horse's foot, in the worst fracture he ever saw the os coronæ was broken, and it was done by a girl riding a horse on a tan ring in a circus, it had been made to a considerable depth with various soft materials so that there would be no concussion from below. He once had another bad fracture caused when a horse was turning round.

Mr. PROCTOR was sorry he could not speak so practically as many present upon shoeing, but one system of shoeing, the Charlier, he could say something about. For a year and a half he drove his horses in the Charlier shoe, and always found where the foot was sufficiently strong to carry this shoe, that horses went far better; and horses that were really unsound would go with the elasticity of young horses. He discontinued it because in country practice they used their horses up pretty frequently, and he found it a great trouble to get his horse's foot prepared sufficiently in the time. He used it to two or three horses he drove during that length of time, and one in particular which had been going thoroughly unsound, shortly after going with a Charlier shoe became sound. He thought if that shoe could be more generally adopted, it would be found the best shoe for all purposes. They went without turning up, and he had driven them on the most slippery roads, where a horse could scarcely stand with turned up shoes; and they could never slip when the frog was allowed to expand so as to fill up the intervening space between the shoe and the heel.

Mr. PEMBERTON could not say he liked the Charlier shoe. He found that horses so shod lost their action and went short. If you have a Charlier shoe the horn does not grow sufficiently to put a second one on, and therefore you get soreness of the feet. The master of hounds in his district always shoes his horses with Charlier tips and there was no case of lameness amongst his horses. One of his horses was sold and went into Shropshire for five or six years and he had bought it back for an old song. He (Mr. Pemberton) should say it had navicular disease, but he had taken to shoeing it with these Charlier tips and he had hunted it several times, and it went sound now.

Mr. PERRINS said his experience was that horses did lose their action with Charlier shoes and they became "pattering"; and the greatest objection was that although made from the best of iron they were continually breaking.

Mr. MALCOLM said they had shod their fire brigade horses in Birmingham for the last 12 years with tips, and had not had a single case of navicular disease amongst them and scarcely a sprained leg. The hoof comes to the ground and prevents slipping, which was a great advantage in the winter time. But in a considerable number of cases they found tips could not be adopted. A horse with weak heals would not do with it—it was simply a matter of growth of horn versus wear and tear. With fine soft roads there was no reason why horses should not be shod in that way, but where they had hard roads and granite blocks they found the horn wore away more rapidly than it was produced; where they had horses with only occasional exercise like fire brigade horses, the growth is equal to the wear, and in fact the hoof gets abnormally strong. He was glad Mr. Hunting had modified his opinion with reference to the expansion of the foot. He himself did not believe there was very much expansion but always thought there was a little—but questioned if that little was of much practical moment. With reference to the practical expansion of the foot they had only to remove the horny sole to see it effected. Let a horse stand upon such a foot for a short time and you will soon perceive that foot to be considerably larger than the other one. A large strong frog with ground pressure will also prevent contraction. With regard to the suggested function of the suspensory ligament in suddenly pulling up the hoof, he did not believe it was the agency of the suspensory ligament at all, but on the contrary, that it was entirely muscular. He knew two cases where they had a great amount of this clutching action. In both cases it was due to injury of the stifle. In these cases the extensor muscles seemed to act more powerfully than the flexors. As a consequence when the foot was raised from the ground in progression there was that sudden clutch upwards and backwards of it, so well described by the lecturer. He thought this abnormal action was just an increase of the normal action, and the same agents differing in degree were responsible for both.

Mr. HUNTING replying on the discussion said he took it that corn was simply a bruise of the sensitive structures by heel of the shoe, and he agreed with the speaker who pointed out that the chief cause of this was shoeing with short shoes, and he might have added by shoeing too close to the edge of the wall. As to the action of the perforans on the pedal bone, he agreed with Mr. Perrins that when they had exudation between the sensitive and horny laminæ the tendency would be to rotate the bone within the hoof, and therefore to further depress the bone and cause injury of a kind. He did not say the sharp edge of the coffin bone would force itself mechanically through the wall, but it was assisted by inflammatory action of the sensitive sole. The hoof itself could not take on any inflammatory action, but it became softened by the exudation above it and therefore was much more easily penetrated by the sharp edges of the bone. Mr. Wartnaby confessed to having forgotten his anatomy, but he (Mr. Hunting) could assure him that he was not far wrong about the transverse fibres which run through the plantar cushion, and he proceeded to describe them. Mr. Wartnaby had pointed out that leaving the heels too high was also a cause of contraction. He (Mr. Hunting) mentioned want of frog pressure as being the cause, but half the cases of atrophied frogs were due to the heels being left too high. He did not know why men should be afraid of reducing heels to proper proportions for it was pretty certain that if they had high heels they had small wasted frogs. Some gentlemen felt inclined to grumble about large frogs, but they ought to be thankful for such developments. Their size depended entirely upon the want of development of the other structures of the foot. When they had a weak heel the frog doubles its size and it helps to sustain the pressure that ought to come on the other structures surrounding it. In the last two cases of fractured posterns he had seen, one

was caused by a man galloping a horse for its wind in a small ring, and the other occured in a horse that had not been out for a week and the driver amused himself by watching him jump and play about, and in that case it was a mis-step that did it. He let his weight down on the hard unyielding column of bones, and not upon the muscles and tendons where it ought to have been. Mr. Stanley had referred to a case at a circus and another where the horse turned suddenly round. Now the sort of action they would get on the bones in going round a corner, or making a sudden turn, would apparently have a tendency to fracture them if we believed that the anatomical arrangement of the articular surfaces—the ridge and furrow acted upon each other like a wedge in a cleft. But this would only account for fracture from side to side, and we saw nearly as many bones fractured through from back to front or even splintered in all directions. He did not see then how the screwing-round business could account for the fracture of those bones. Mr. Horton referred to the suspensory ligament becoming damaged in race horses, and pointed out what he (Mr. Hunting) believed did occur, viz., that in the extreme extension of the foot in galloping you have a period at which the suspensory ligament is most stretched, then they had the tired muscles which failed to to their duty; and thus they had just the circumstances under which the suspensory ligament would be tried when it was extended to its fullest, and when it would most likely suffer strain or rupture. With regard to giving exit to the exudations in laminitis, the late Mr. John Lawes of Manchester used to advise cutting a hole in the wall to let it out. But this opening does something else, it lets in the dirt and may also admit organisms. As to descent of the sole, Mr. Carless said, that the seated shoe was rather an arrangement in favour of the sole descending; but a seated shoe hardly got bearing beyond the abutment of the sole, and that portion of the sole is quite capable of taking pressure. It would be found that for a space of an inch the border of wall and sole would take bearing perfectly well. He did not think it was the fact of having pressure on the sole that did harm, but it was the *uneven* pressure; and when they had a concave body like the sole, it was almost impossible for a man to fit a shoe exactly enough to avoid pressing unevenly. Mr. Stanley and Mr. Rogers told them that on the polished surface of the shoe they would find that the scratches ran transversly and not longitudinally, and they drew the inference that this could only result from lateral movements which would prove the expansion theory of the foot. He replied that a polished surface on a shoe was only seen when the shoe was loose or when improperly fitted, and that such conditions did not permit inferences as to action under normal conditions.

Although he admitted that expansion took place of the posterior part of the foot at the coronet, he did not believe that on the ground surface there was any expansion whatever. With reference to "pointing," as long as they rested the diagonal foot he never looked upon it as a sign of unsoundness unless he found lameness. In fact "pointing" was never more than a suspicious symptom, unless lameness or structural change in the foot accompanied it. In conjunction with these it became very significant.

Mr. MALCOLM proposed a hearty vote of thanks to Mr. Hunting for his paper. Mr. J. S. BARBER seconded. The resolution was carried unanimously, Mr. HUNTING having thanked them.

Mr. MALCOLM announced that the next meeting would be held at Birmingham.

A vote of thanks to Mr. Malcolm for presiding was proposed by Mr. BLAKEWAY, seconded by Mr. DAWES, and carried, and the meeting terminated.

H. J. DAWES, *Hon. Sec.*

EXTRACTS AND NOTES.

FAVUS CONTAGION FROM THE LOWER ANIMALS.

By S. SHERWELL, M.D.

(Clinical Professor of Dermatology, Long Island College Hospital.)

Mr. A———, a gentleman living in a suburban villa near Brooklyn, came to me December 3, 1891, bringing with him his two daughters, aged respectively about ten and twenty years, each of whom, otherwise in magnificent health, was suffering from a skin lesion or eruption of recent date on arms, neck and bust. The symptoms were much more marked in the case of the eldest, who, when arms were exposed, showed a patch of favus eruption on upper and outer aspect of arms near deltoid region, particularly inflamed and covered with sparse but evident scutula of the achorion—the other patches in regions mentioned above, while evidently of the character of vegetable parasitic order, were not so well marked, nor were they in the younger sister.

Recognizing the lesion, as it was easy to do at sight, I instituted inquiry as to whether they, the family, kept any pet animals, and was told in reply that they had three dogs, great favourites, the smallest of which, a Scotch terrier, was the special pet of the elder young lady, even sleeping on her bed and being constantly with her, and being fondled by her; the other dogs, a setter and a hound respectively, also were made much of by the whole family, and admitted freely to house, etc. On asking if they did not scratch themselves a good deal was assured they did, of late particularly, acting as if they had fleas, but they had, on examination, not been able to find that they were so infested; on further questioning, found that they had noticed, however, a poor condition of their coats, and on the little dog a patch behind the ear where the skin appeared frayed, mouldy or mangy.

On question as to vermin about house, found they suffered from a veritable plague of rats and mice, particularly the latter, that they were quite bold, making their nests everywhere, and that traps were of little service in thinning their numbers, and that they had feared to use poisons on account of the dogs, and furthermore, that a curious circumstance had lately happened—that one of the dogs had caught and been found playing with a poor sick mouse (from the description evidently, one affected with severe favus eruption), which they in the goodness of their hearts rescued from the dogs, and in sheer pity for its miserable state allowed to escape.

The case was clear; after making explanation of the character of the lesions, and their connection

with the animals, I ordered the dogs to be sent away, quarantined, and treated by veterinary surgeon of the neighbourhood, further directing them to use traps, poisons, etc., in fact everything possible to diminish the number of the rodents, and to exterminate them if possible, all of which was instantly set about. I instituted treatment of the cases in the family itself. The mother and a young son were also found to be affected. The remedies used were ol. cadini, a few drops in a one-half ounce each of ol. hydrarg., five per cent. and ol. amydal. dulc, this to be fairly applied after scouring with liniment saponis, somewhat dilute, directing also the scalp and other capillary regions to be anointed in moderate degree with the same union of oils. The cases all did satisfactorily, and in short time, so that up to present date nothing more has been heard of recurrence of that or similar lesions. The dogs, after about two months' quarantine and treatment, are now also in perfect dermic health.

I had asked the family to send me specimens of the sick mice if they caught any in traps, etc. They sent me two very marked cases, with eruption most pronounced on head in both, but one affected in spots over fully one-half of surface—one of which (the first and lightest case), seeing that Unna, of Hamburg, had been doing a good deal of microscopic work about that time on the achorion, I sent him, having previously gutted it and rubbed a little arsenious acid in abdominal cavity. Later on, February, 1892, I received a letter from him, saying that while it was undoubtedly favus, it had some unusual features of microscopic growth. Certainly the microscopic appearance of the young lady's arm was as distinct was well could be, typically yellow and cupped.

I have had several cases in my practice of this parasitic disease, evidently from contagion from the lower animals. A stableman being the patient, the patch in this case, is under the eye, sharply defined isolated lesion; the scutula were absolutely typical and perfect. I scraped this case with dermal curette, and applied liq. hydrargyri nitralis mildly, with cure following as a matter of course. In this case also, I asked him to trap and bring me any affected rats or mice he could get, with the result that two or three days thereafter he brought me a mouse, which I yet have in case, mounted by a taxidermist of the vicinity. The patch in this case is of grayish yellow, and as in all cases I have seen is on the head. I have invariably found the head and cheek the most affected part in mice, whatever other regions were attacked, and this is a point which has for many years interested me.—*American Veterinary Review.*

Dr. J. M. Macfarlane, who for several years has been assistant to the Professor of Botany at the Edinburgh University, and lecturer on the subject at the Royal (Dick) Veterinary College, has been appointed Professor of Biology in the University of Pennsylvania.

IMPROVED SIDE LINE.

By A. E. Michell, M.R.C.V.S., St. Austell.

The Side Line represented by the accompanying woodcut needs only to be seen to be appreciated. It is at once simple yet complete, easy of adoption—to either a large or small animal—yet perfect in action, in that its functional position for operations remains constant. Its superiority over anything of the kind before the profession, lies in its uniformity of action. It affords complete and safe control of the animal, thereby preventing the possibility of injury by twisting or straining the back which is so liable in casting by an ordinary side or uneven action apparatus.

The collar is so made as to fit the neck and shoulders snugly. Any variation of size that may be necessary is effected by letting out or taking up one or more holes on each side of the neck strap A. The ropes, which are of suitable size and strength, are 28 feet long each, and are fastened to the collar at B. These are passed between the fore-legs, through the hobbles attached to the hind-legs, or without hobbles, then back through the steel runners C. and D. on sides of collar, which keeps the collar in position. The ropes are gently pulled which casts the horse in the most safe and easy manner possible without risk to either man or beast.

It is made by Messrs. Arnold and Sons, West Smithfield, London.

"INTELLECTUAL LIGHT."

Buried in the pages of an article on "Southern Cattle Plague" by Frank S. Billings, is a wonderful paragraph. The first part apparently inculcates self-reliance and modesty. The second part shows how "the lamp of truth" filled with the oil of "reflected light" and supplied with the "wick of past authority" needs constantly trimming by "a Galileo, a Hunter, a Pasteur" (a Fleming, or a Billings); and how such "intellectual giants of a living present" with one fell stroke—but stop, we do not

feel equal to the task of explanation; let each reader gather the meaning for himself.

"I do not care an iota as to the sanctity which antiquity is often assumed to give to a statement or conclusion, any more than I do to the weight a great reputation is often assumed to give to a so-called authority. Positively and without reserve, I am my own authority, and so is every other man who has any opinion worthy of a moment's consideration. Infallibility is by no means claimed in that statement. We are all liable to error. Nevertheless, after weighing all the evidence, our own conclusions must be our infallible guide is all matters. The great trouble is that the majority of the human race have no evidence of their own by which to weigh that of others. They blindly accept the "has been" because of the supposed sanctity of age and its authors. Those who can observe acutely the phenomena of nature and draw conclusions that will stand the test of time, have been and still are rare productions in the march of human progress. Whether right or wrong in my conclusions time will alone tell. One thing is sure, that is, that as every other man, I have no other light than that of my own intelligence to guide me. The work of others can be but a reflected light by which each of us may strengthen himself in the pursuit of knowledge. Unfortunately, only too many find the greater portion of their intellectual light in the transmitted reflections of the past. As the heat of the sun of yesterday aids that of to-day in developing our growing harvest, so the reflected intellectual lights of the past add warmth and strength to our own endeavours; but as yesterday's sun also adds strength and vigour to the weeds which we cut down and they dry and wither in to-day's sun, so the light of our ever increasing intelligence must cut down the weeds in the transmissions of past authorities and cause them to wither on the wayside of human progress. He who does this lives to-day, though he dies to-morrow. He is no disrespecter of the great authorities of the past. Their reflected light is the oil which makes the lamp of his own intellect burn all the brighter. The wick of past authority constantly needs trimming. Only the lamp of universal truth, filled droplet by droplet with the oil of knowledge, drawn from nature by the laws of investigation, burns constantly on the altars of human advancement. The flame has never yet gone out though at times the wick has become thickly crusted with accumulated ignorance, or bitter errors, due to the sanctity which unobserving man has had for dead, authority. But still the flame flickered and gave some warmth, and anon comes an Aristotle, a Hippocrates, a Galileo, a Luther, a Boerhaave, a Hunter, a Bichat, a Newton, a Darwin, a Virchow, a Koch, a Pasteur, a Franklin or an Edison, and with one fell stroke the crust of superstitious reverence for authority is knocked heedlessly to one side, and again the lamp of truth burns and its warmth radiates through the nations, once more replenished with fresh droplets of the oil of knowledge wrung from nature's fountains by the intellectual giants of a living present."—*Journal of Comp. Med. and Vet. Archives.*

Cannabis Indica in India.

A former officer of the Bengal Civil Service, writing to *The Times* on the subject of the evils arising from the use of ganja in India, states that the only parts of the country where Indian hemp is cultivated are three districts in Lower Bengal, its cultivation elsewhere being forbidden. The area of cultivation is included within a radius of about sixteen miles. The cultivators are required to take out a special licence from Government, and the storage, classification, transport, and retail sale of the drug are supervised by Government officers and regulated by Government rules. The yearly revenue derived from the sale of ganja is about £150,000, and the quantity consumed in Lower Bengal about 6,000 maunds of 82 lbs. weight. To its use (says the correspondent) can be traced many of the worst crimes in Lower Bengal, and to indulgence in it are due five times as many cases of insanity as can be attributed to spirits and opium combined.—*The Chemist and Druggist.*

A Veterinary Artist.

Captain Adrian Jones, the soldier-artist, is an uncommon personality. Having served in the army—in the 2nd Life Guards—for over 20 years, and passed through several campaigns, including the Abyssinian and the Nile, he has now devoted himself to painting and sculpture, for which the works he has already produced show he has talent of the rarest order. Visitors to this year's Academy will remember the striking realistic life-size group of horses entitled "Duncan's Horses," a group full of boldness and spirit, which was the most prominent feature in the sculpture room. This was the work of the soldier turned sculptor. His most important work of this kind is a model group of "Victory," destined, he hopes, when in large and colossal size, for decorating a prominent public building in London. Captain Jones was successful in obtaining the first prize given by the Goldsmiths' Company for a portrait group, the subject of which was Mr. W. E. Oakley on retiring from the mastership of the Atherston Hounds. He works in silver as well as in clay, and he paints as well as he models.—*Sunday Sun.*

Mortality at the Zoo.

Some curious and interesting facts have just been placed on record in regard to the causes of death among the inhabitants in the Zoological Gardens. Out of 126 consecutive causes of deaths from all causes, no fewer than 41, or 32½ per cent., were due to tuberculosis. The chief mortality in this respect was among the monkeys and birds, and these fell victims to the disease of all ages. "Sally," the chimpanzee whose untimely decease excited so much public notice a few months ago, died of tuberculosis. Besides the birds and the monkeys, tuberculous disease was found in several other animals. The pecularities of the English climate are shown by the fact that bronchitis is a very common disease among the animals; but on the other hand, diseases of the heart are very rare. Rickets, curiously enough is recorded as being very common among the animals in the Gardens—a fact which seems to point to some irregularities or deficiencies of diet. Among the deaths which may be described as due to casualities, mention may be made of a white-tailed eagle which indiscreetly attempted to swallow a large bone 5in. in length. The death of a crane is worthy of notice, inasmuch as the bird had been an inhabitant of the Gardens for forty-two years.

The Treatment of the London Horse.

A meeting, said to be "The first of a series of proposed conferences of horse-owners and others interested in the profitable well-being of the London horse," was held in the French Room of the St. James's Hall, "for the purpose of considering what means, if any, shall be taken for improving the condition of the London horse, and furthering the unity and well-being of horse-owners, managers, stablemen, and drivers, in the interests of the health of London, and to add to the cheerfulness and decorum of London street traffic."—Colonel S. Wickens occupied the chair, and said that the subject they had met to discuss was one which not only recommended itself to horse-owners, but to humanity generally. It was notorious that a great deal of cruelty was practised among small horse-owners, the animals often being stabled in sheds where light, comfort, and ventilation were entirely neglected. He thought if they could do something to ameliorate the condition of the horse they would render good service to their fellow-countrymen. (Hear, hear.)—Mr. Silas Nicholls, in the course of a long statement, advocated the sanitary inspection of stables by some efficient authority, such as the County Council, and the establishment of institutions in which useful horses when sick or diseased might be promptly restored to health at a moderate cost by natural and humane methods. He suggested also that in these institutions men might be properly trained for managers, stablemen, and drivers.—Considerable discussion took place and ultimately it was decided to form a committee of gentlemen interested in the matter to consider how best the London horse might be benefited.—*Daily Chronicle*.

CORRESPONDENCE.

THE FELLOWSHIP.

SIR,

As Mr. Malcolm, by taking exception to your leader of November 12th, seems to court discussion upon the Fellowship degree, I should like to ask him or any of 'our best men' whose 'experience is similar to' his own, in what respect the Fellowship fulfils the requirements of a "higher" degree?

I confess I look upon it as a fraud upon the public and a disgrace to the profession, but at the same time I am open to conviction.

When I last took exception to this degree there was not a single holder of it to come forward to defend it; so I hail with delight your proposal to form a committee of enquiry to examine thoroughly into it, and wish you every success, and as a result hope we may have a higher examination, not only in word but in deed.

I cannot let this opportunity slip without thanking the Fellows for the very marked interest they have taken in the welfare of the Membership examination; without they do something in a similar directinn for themselves or something is done for them before 1895, they will sink ——, the comparison between the two degrees is absurd enough now, what will it be then? I dare not think.

No, we must all come to the rescue of our highest degree, to save it at any rate from sinking lower, but not finally content till we have severed it from its present and past state, and place it in the proud position it was intended to hold, as head and pioneer of the veterinary world, the holders of its diploma honouring and being honoured by the whole profession.

As a means to this desirable end we must not shut our eyes to the existing state of affairs.

FRANK W. GARNETT, M.R.C.V.S.

Windermere, Nov. 29, 1892.

A WELCOME WORD.

SIR,

Since *The Veterinary Record* has seen the light of day none of its many interesting numbers which have gained currency are superior in utility to those of the past few weeks, wherein, from the able pens of Jno. A. W. Dollar and T. J. W. Dollar respectively, translations from foreign publications had occupied a prominent position, and arrested due attention. Now if I can add my grateful thanks not only to the worthy translators but also to you, sir, as the editor of *The Record*, none but the passing hour and place seem opportune. Friends in the veterinary profession have one and all, without being asked their opinions on the new departure, broached the subject momentarily, and with apparent delight. A sure sign that good work will undoubtedly accrue to the veterinarians of this country by faithful, graphic accounts of what is occupying veterinary science among our Continental brethren. We, as a profession, stand in need of such worthy translations of French, German, and other contributions into our own language, particularly those who like myself humbly confess to an imperfect knowledge of the languages of Continental States. I am not alone in this confession I feel sure, and therefore trust the good work inaugurated will be continuous, fully convinced that you, sir, will attract the attention of many to your work, and have further assistance in making your weekly publication of sterling value to those who are desirous of progressing in veterinary medicine and surgery, also raising it to the level of other and allied sciences.

McM.

THE MAIDENHEAD CASE.

SIR,

It may be interesting to you and some of your readers to know the mare's canker is cured. Healthy horn having formed over the small spot you saw when down here. I may say her gait is the same as when you saw her, *i.e.* not lame but stiff. I think this shows whose diagnosis was correct, and I again repeat—she never suffered from any painful lameness during the time I have known her.—Yours truly,

B. EGGLETON.

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED:—Prof. Crookshank, Messrs. D. Swift, D. Young, F. W. Garnett, E. E. Seldon, H. J. Dawes, B. Eggleton, P. Moir, J. A. Meredith, "Scrutator."

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers, containing facts of interest.

Original articles and reports should be written on one side only of the paper, and authenticated by the names and addresses of the writers, not necessarily for publication.

Communications for the Editor to be addressed 20 Fulham Road, S.W.